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Ross T Robinson
Jenkins & Gilchrist, A Professional Corporation
1445 Ross Avenue
Suite 3700
Dallas, TX 75202

EXAMINER

ASSESSOR, BRIAN J

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/657,561	Applicant(s) LICCIONE ET AL.	
	Examiner Brian J. Assessor	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-16, 18 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 11, 17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/20/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 23 claims a "computer program product comprising a computer usable medium", wherein the specification defines the computer medium to include signals (page 10, paragraph 0147). Signals are a form of energy and therefore are not included under the forms of invention. Claims 24 and 25 are defined as computer program products, which are best defined in the specification (page 10, paragraph 0148) as computer programs, which are non-statutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Cramer (6,920,579).

As per claim 1, Cramer teaches:

An application monitoring and disaster recovery management system,
comprising:

a primary computing environment, including a primary server executing an
application; (Cramer figure 1, Filer A)

a secondary computing environment, including a secondary server capable of
executing said application; (Cramer figure 1, Filer B)

a management server, executing a monitoring and management server module,
that is in communications with said primary server and said secondary server; (Cramer
figure 1, element 400)

a graphical user interface, in communications with said monitoring and
management server module, (Cramer column 5, lines 25-28) capable of allowing a user
to perform a failure switch-over from said primary computing environment to said
secondary computing environment for said application in a single action; (Cramer
column 5, lines 15-19)

whereby said system allows for disaster recovery and fault tolerance, and limits
computing down-time experienced by end-users of said primary computing
environment. (Cramer column 2, lines 59-64; column 4, lines 24-26) (112)

As per claim 2, Cramer teaches:

Z The system of claim 1, further comprising: a first plurality of intelligent
agents distributed within said primary computing environment, wherein each of said first

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plurality of intelligent agents monitors a metric related to said application executing on said primary server. (Cramer column 5, lines 29-32; the monitor for the server checks a number of software and hardware elements for failure.)

As per claim 10, Cramer teaches:

The system of claim 1, wherein said graphical user interface is further capable of allowing a user to perform a switch-back from said secondary computing environment to said primary computing environment for said application in a single action. (Cramer figure 4, element 402; the user has one step for initiating the switch-back operation)

As per claim 12, Cramer teaches:

The system of claim 1, wherein said primary computing environment and said secondary computing environment are geographically dispersed. (Cramer column 4, lines 51-58; remote access could be from any amount of geographic locations.)

As per claim 13, Cramer teaches:

The system of claim 1, wherein said primary and secondary computing environments, said management server and said graphical user interface are interconnected over at least a portion of the global, public Internet. (Cramer column 4, lines 51-58; remote access over a network is at least a portion of the public Internet.)

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 14-16, 18, 20, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Cowan (6,115,743).

As per claim 3, Cramer teaches:

The system of claim 2, wherein each of said first plurality of intelligent agents are in communications with said monitoring and management server module, (Cramer column 5, lines 29-32; the monitor for the server checks a number of software and hardware elements for failure.)

Cramer fails to explicitly disclose that the graphical user interface is capable of displaying the metric corresponding to each of said first plurality of intelligent agents.

In column 2, lines 59-65; Cowan clearly discloses a system wherein the GUI displays information from the monitoring and control of the servers on the network. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Cramer to include the capability of the GUI to display the server information as taught by Cowan, in order to keep the user better informed of the status of the servers. It would have been obvious because both Cowan and Cramer use GUI for server monitoring, Cramer just does not specifically mention displaying the status information

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that is retrieved. Cowan also teaches that the above process is better suited for management and monitoring of network devices. (Cowan column 1, line 66 – column 2, line 10)

As per claim 4:

The system of claim 3, further comprising: a second plurality of intelligent agents distributed within said secondary computing environment, wherein:

each of said second plurality of intelligent agents monitors a metric related to a subsystem within said secondary computing environment; (Cramer column 5, lines 29-32; the monitor for the server checks a number of software and hardware elements for failure.)

each of said second plurality of intelligent agents are in communications with said monitoring and management server module; (Cramer column 5, lines 29-32; the monitor for the server checks a number of software and hardware elements for failure.) said graphical user interface is capable of displaying the metric corresponding to each of said second plurality of intelligent agents. (Cowan column 2, lines 59-65)

As per claim 14, Cramer teaches:

A method for providing a user with an application monitoring and disaster recovery management tool, comprising the steps of:

deploying a first plurality of intelligent agents within a primary computing environment, said primary computing environment including a primary server executing

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an application, (Cramer column 4, lines 41-44) and wherein each of said first plurality of intelligent agents monitors a metric related to said application; (Cramer column 5, lines 29-32; the monitor for the server checks a number of software and hardware elements for failure.)

monitoring, by a monitoring and management server module executing on a management server, a plurality of states, each of said plurality of states being rendered by one of said first plurality of intelligent agents; (Cramer column 5, lines 29-32; the monitor for the server checks a number of software and hardware elements for failure.)

performing a failure switch-over from said primary computing environment to a secondary computing environment having a secondary server capable of executing said application (Cramer column 4, lines 24-26) in response to a first input received from the user via said graphical interface; (Cramer column 5, lines 15-19)

whereby said method allows for disaster recovery and fault tolerance, and limits computing down-time experienced by end users of said primary computing environment. (Cramer column 2, lines 59-64; column 4, lines 24-26)

Cramer fails to explicitly disclose that the graphical user interface is capable of displaying the metric corresponding to each of said first plurality of intelligent agents.

In column 2, lines 59-65; Cowan clearly discloses a system wherein the GUI displays information from the monitoring and control of the servers on the network. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Cramer to include the capability of the GUI to display the server information as

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taught by Cowan, in order to keep the user better informed of the status of the servers.

This would have been obvious because both Cowan and Cramer use GUI for server monitoring, Cramer just does not specifically mention displaying the status information that is retrieved. Cowan also teaches that the above process is better suited for management and monitoring of network devices. (Cowan column 1, line 66 – column 2, line 10)

As per claim 15:

The method of claim 14, wherein said application is an electronic mail application, (Cowan column 8, lines 15-19) and said failure switch-over comprises the step of temporarily changing the hostname of said secondary server to the hostname of said primary server. (Cramer column 5, lines 38-45)

As per claim 16, Cramer teaches:

The method of claim 14, wherein said primary computing environment and said secondary computing environment are geographically dispersed. (Cramer column 4, lines 51-58; remote access could be from any amount of geographic locations.)

As per claim 18, Cramer teaches:

The method of claim 14, further comprising the step of:

performing a switch-back from said secondary computing environment to said primary computing environment (Cramer column 4, lines 47-50) in response to a second input received from the user via said graphical interface. (Cramer column 5, lines 25-28)

As per claim 20:

The method of claim 14, further comprising the steps of:

deploying a second plurality of intelligent agents within said secondary computing environment, wherein each of said second plurality of intelligent agents monitors a metric related to a subsystem within said secondary computing environment; (Cramer column 5, lines 29-32)

monitoring, by said monitoring and management server module, a second plurality of states, each of said second plurality of states being rendered by one of said second plurality of intelligent agents; (Cramer column 5, lines 29-32; numerous software and hardware states are monitored by the failover monitors.)

displaying to the user, via said graphical user interface, said second plurality of states. (Cowan column 2, lines 59-65)

As per claims 23 and 24:

Claims 23 and 24 respectively are computer program product claim corresponding to the method claims 14 and 15. Therefore, claims 23 and 24 are rejected for the same rationale set forth in claims 14 and 15.

Claims 5, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Zetts (6,378,129).

As per claim 5, Cramer teaches:

The system of claim 1, further comprising:

a primary data repository located within said primary computing environment and accessible by said primary server; (Cramer figure 1, element 160; Disk Shelf A)

a secondary data repository located within said secondary computing environment and accessible by said secondary server; (Cramer figure 1, element 160; Disk Shelf B)

Cramer does not explicitly disclose a system with means for synchronizing data stored in said primary data repository and said secondary data repository in real time as new data are written to said primary data repository as said application executes.

In column 3, lines 15-26; Zetts clearly discloses a system which two servers are synchronized and are configured as a primary server and a stand-by secondary server, which takes over in the event of a failure to the primary server. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Cramer to include a synchronous connection when having a stand-in backup server as taught by Zetts in order to increase data reliability. This would have been obvious because Zetts teaches that the above process is better suited for maintaining data reliability and accuracy in a server environment. (Zetts column 3, lines 4-9)

As per claim 6:

The system of claim 5, wherein said means for synchronizing data comprises a communications link from said primary server to said secondary server. (Cramer column 5, lines 15-22)

As per claim 8:

The system of claim 5, further comprising:
a plurality of intelligent agents distributed within said primary computing environment, wherein each of said plurality of intelligent agents monitors a metric related to said primary data repository. (Cramer column 5, lines 29-32)

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Zetts (6,378,129) in further view of Midgely (^{5,608,865}~~6,115,743~~).

As per claim 7:

Cramer and Zetts do not explicitly disclose a plurality of archival data stores, each accessible by said secondary data repository, wherein each of said plurality of archival data stores is capable of storing a different point-in-time level snapshot of data stored in said secondary data repository.

In column 1, lines 59-67; Midgely clearly discloses a system that records snapshots in order to back up data. It would have been obvious to a person of ordinary skill

in the art at the time of invention to modify Cramer and Zetts to include the snap shot copy system as taught by Midgely in order to increase data availability and recoverability. This would be obvious because Midgely teaches that the above system is better suited for backing up data. (Midgely column 2, lines 11-18)

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Zetts (6,378,129) in further view of Cowan (6,115,743).

As per claim 9:

The system of claim 8, wherein each of said plurality of intelligent agents are in communications with said monitoring and management server module; (Cramer column 5, lines 29-32)

Cramer does not explicitly disclose that the graphical user interface is capable of displaying the metric corresponding to each of said plurality of intelligent agents.

In column 2, lines 59-65; Cowan clearly discloses a system wherein the GUI displays information from the monitoring and control of the servers on the network. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Cramer to include the capability of the GUI to display the server information as taught by Cowan, in order to keep the user better informed of the status of the servers. This would have been obvious because both Cowan and Cramer use GUI for server monitoring, Cramer just does not specifically mention displaying the status information that is retrieved. Cowan also teaches that the above process is better suited for

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management and monitoring of network devices. (Cowan column 1, line 66 – column 2, line 10)

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Cowan (6,115,743) in further view of Zetts (6,378,129).

As per claim 21:

Cramer and Cowan do not explicitly disclose a system which synchronizes data stored in a primary data repository accessible to said primary server within said primary computing environment and a secondary data repository accessible to said secondary server within said secondary computing environment in real time as new data are written to said primary data repository as said application executes.

In column 3, lines 15-26; Zetts clearly discloses a system which two servers are synchronized and are configured as a primary server and a stand-by secondary server, which takes over in the event of a failure to the primary server. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Cramer and Cowan to include a synchronous connection when having a stand-in backup server as taught by Zetts in order to increase data reliability. This would have been obvious because Zetts teaches that the above process is better suited for maintaining data reliability and accuracy in a server environment. (Zetts column 3, lines 4-9)

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Cowan (6,115,743) in further view of Midgely (^{5,608,865}~~6,115,743~~).

As per claim 22:

Cramer and Cowan do not explicitly disclose a system for archiving data from said secondary data repository to one of a plurality of archival data stores in response to a second input received from the user via said graphical interface, wherein each of said plurality of archival data stores contains a different point-in-time level snapshot of data stored in said secondary data repository.

In column 1, lines 59-67; Midgely clearly discloses a system that records snapshots in order to back up data. It would have been obvious to a person of ordinary skill in the art at the time of invention to modify Cramer and Zetts to include the snapshot copy system as taught by Midgely in order to increase data availability and recoverability. This would be obvious because Midgely teaches that the above system is better suited for backing up data. (Midgely column 2, lines 11-18)

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cramer (6,920,579) in view of Cowan (6,115,743) in further view of Sekizawa (2002/0138612).

As per claim 25:

Cramer and Cowan fail to explicitly disclose means for causing the computer to query said application once every pre-determined time period in order for each said

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plurality of intelligent agents to monitor said corresponding metric related to said application.

In pages 24 and 25 paragraphs 0291 and 0293; Sekizawa clearly discloses a system for setting up pre-determined time intervals for network devices. It would have been obvious to a person of ordinary skill in the art at the time of invention to include the time interval system as taught by Sekizawa in order to create a superior network device monitoring system. This would have been obvious because Sekizawa teaches that this system is better suited for reduced cost monitoring and increases monitoring reliability, no matter how many devices are connected. (Sekizawa page 1, paragraph 0010)

Allowable Subject Matter

Claim 11, 17, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Assessor whose telephone number is (571) 272-0825. The examiner can normally be reached on M-F 8:30-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BA


SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER